

# Flammability Configuration Analysis for Spacecraft Applications

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# Flammability of Flight Hardware - Technical Requirements

- **NASA-STD-6001**
- **NSTS 1700.7B - Safety Policy and Requirements for Payloads Using the Space Transportation System**
- **SSP 30233 - Space Station Requirements for Materials and Processes**

# Flammability of Flight Hardware - Technical Requirements

## **NSTS 1700.7B -**

- **tailors NASA-STD-6001 by exempting materials used in small quantities (< 0.1 lb or 10 in in manned crew compartments and < 1 lb and/or 12 linear inches for external materials)**
- **requires a flammability assessment per NSTS 22648**

# Flammability of Flight Hardware - Technical Requirements (Continued)

## SSP 30233

- requires Material Usage Agreements (MUA) for hardware containing materials failing NASA-STD-6001 requirements.
- MUA's are supported by analysis per NSTS 22648

# Flight Hardware Configuration Flammability Assessment - NSTS 22648

- Evaluate the overall hardware configuration
- Evaluate the way in which the hardware will be used
- Identify the major materials to be assessed
- Determine fire propagation paths
- Evaluate ability of containers to contain fire

# Material Usage Agreements SSP 30233 Flammability Rationale Codes - Examples

<b>Code</b>	<b>Rationale</b>
104	sandwiched between non-flammable material and no Ignition source (IS) or propagation path (PP)
105	minor usage; no IS or PP
106	used in a sealed container

# MUA's - SSP 30233

## Flammability Rationale Codes - Examples (Continued)

### Code

### Rationale

■ 108

off the shelf equipment  
having material acceptable  
in configuration; no IS or PP

■ 112

overcoated with a non-  
flammable material